



User Guide

Lumension Endpoint Management and Security Suite Remote Systems Management 7.1



Notices

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Table of Contents

Preface: About This Document.....	7
Typographical Conventions.....	7
Contacting Lumension.....	8
Chapter 1: Remote Systems Management Overview.....	9
Remote Systems Management Workflow.....	9
Advantages of Using Remote Systems Management.....	10
Chapter 2: Remote Systems Management Installation.....	11
Minimum Hardware Requirements.....	11
Supported Lumension Endpoint Management and Security Suite Server Environments.....	12
Supported Client Operating Systems.....	12
Supported Client Browsers.....	13
Other Software Requirements.....	14
Installing the Remote Systems Management Module Server Component.....	14
Uninstalling the Remote Systems Management Module Server Component.....	15
Managed Operating Systems.....	15
Chapter 3: Using Lumension Endpoint Management and Security Suite.....	17
Supported Browsers.....	17
Logging In to Lumension Endpoint Management and Security Suite.....	17
Logging Out of Lumension Endpoint Management and Security Suite.....	18
Common Functions within Lumension Endpoint Management and Security Suite.....	19
Common Conventions.....	20
Toolbars.....	21
List Pages.....	21
The Page Banner.....	21
The Options Menu.....	22
Filters.....	22
Group By.....	25
Expanding and Collapsing Structures.....	26
Advancing Through Pages.....	26
Help.....	27
Exporting Data.....	27



The Home Page.....	28
The Lumension Endpoint Management and Security Suite Header.....	28
The Navigation Menu.....	29
The Dashboard.....	31
Dashboard Setting and Behavior Icons.....	37
Previewing and Printing the Dashboard.....	37
Editing the Dashboard.....	38
The System Alert Pane.....	39
License Expiration	40
Chapter 4: Using Lumension Remote Systems Management.....	43
Management Options.....	44
The Manage Remotely Menu.....	44
Remote Systems Management Plug-In.....	45
Installing the Remote Systems Management Plug-In.....	45
Manage Remotely Access Right.....	47
The Remote Desktop Connection.....	48
Launching the Remote Desktop Connection.....	49
MMC: Computer Management.....	50
Launching the Microsoft Management Console.....	51
The NSLookup MS-DOS Command.....	53
Launching the NSLookup MS-DOS Command.....	53
The Ping MS-DOS Command.....	54
Launching the PING MS-DOS Command.....	55
PuTTY: Remote Management Tool.....	56
Launching the PuTTY Communication Tool.....	56
The Virtual Network Connection.....	58
Launching the Virtual Network Connection Tool.....	59



Preface

About This Document

This User Guide is a resource written for all users of Lumension Endpoint Management and Security Suite: Remote Systems Management 7.1. This document defines the concepts and procedures for installing, configuring, implementing, and using Lumension Endpoint Management and Security Suite: Remote Systems Management 7.1.

Tip: Lumension documentation is updated on a regular basis. To acquire the latest version of this or any other published document, please refer to the *Lumension Customer Portal* (<http://portal.lumension.com/>).

Typographical Conventions

The following conventions are used throughout this documentation to help you identify various information types.

Table 1: Typographical Conventions

Convention	Usage
bold	Buttons, menu items, window and screen objects.
<i>bold italics</i>	Wizard names, window names, and page names.
<i>italics</i>	New terms, options, and variables.
MONOSPACE UPPERCASE	Keyboard keys.
BOLD UPPERCASE	SQL Commands.
monospace	File names, path names, programs, executables, command syntax, and property names.



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Chapter 1

Remote Systems Management Overview

In this chapter:

- Remote Systems Management Workflow
- Advantages of Using Remote Systems Management

Lumension Remote Systems Management works with Lumension Endpoint Management and Security Suite (Lumension EMSS) to provide administrators a simple way to remotely manage devices from the Lumension EMSS Web console.

Remote Systems Management Workflow

The Remote Systems Management (RSM) is a Lumension Endpoint Management and Security Suite (Lumension EMSS) platform component providing administrators an effective way to remotely manage endpoints.

A typical Lumension Remote Systems Management workflow consists of the following steps:

1. Install the RSM platform component on your Lumension EMSS server.
2. Install the RSM plug-in on your local computer (the system from which you are accessing Lumension EMSS).
3. Begin remotely managing endpoints from your local computer using the Lumension EMSS Web console.



Advantages of Using Remote Systems Management

The Lumension Remote Systems Management contains features that benefit administrators by providing a simple way to remotely manage endpoints from the Lumension Endpoint Management and Security Suite Web console.

The following lists itemizes the benefits of using the Remote Systems Management features:

- It provides the log in page for the Windows® Remote Desktop Connection (RDC), which is a simple interface to access applications and data on a remote Windows computer over a network.
- It allows you to launch the Microsoft® Management Console (MMC), which allows you to manage and monitor Windows systems on an endpoint computer.
- It provides you with the `NSLOOKUP` MS-DOS® command, which performs a reverse lookup on an IP address by querying the Domain Name System (DNS) server of the endpoint computer.
- It provides you with the `PING` MS-DOS® command, therefore allowing you to troubleshoot connectivity problems within your network.
- It allows you to launch PuTTY®, a remote management tool that allows you to remotely control a Non-Windows target computer over the Internet.
- It allows you to launch Virtual Network Connection® (VNC), a platform-independent application that allows you to view and interact with another computer over a network or Internet.



Chapter

2

Remote Systems Management Installation

In this chapter:

- Minimum Hardware Requirements
- Supported Lumension Endpoint Management and Security Suite Server Environments
- Supported Client Operating Systems
- Supported Client Browsers
- Other Software Requirements
- Installing the Remote Systems Management Module Server Component
- Uninstalling the Remote Systems Management Module Server Component
- Managed Operating Systems

Successful installation of the Lumension Endpoint Management and Security Suite (Lumension EMSS) server is vital to installing Lumension Remote Systems Management (RSM).

RSM is a platform component within the Lumension EMSS. All platform components are included in the Lumension EMSS install.

Refer to the *Lumension Endpoint Management and Security Suite 7.1 Server Installation Guide* (<http://portal.lumension.com>) for information on how to install the Lumension EMSS server.

Minimum Hardware Requirements

To successfully install Lumension Remote Systems Management (RSM) on the Lumension Endpoint Management and Security Suite server, your computer must meet or exceed the specified hardware requirements.

To install the RSM platform component, you must meet the following requirements:

- The server must have Lumension Endpoint Management and Security Suite 7.1 or later installed.
- Refer to the *Lumension Endpoint Management and Security Suite 7.1 Server Installation Guide* (<http://portal.lumension.com>) for all hardware and software requirements.



Supported Lumension Endpoint Management and Security Suite Server Environments

Lumension Remote Systems Management is only supported on Lumension Endpoint Management and Security Suite (Lumension EMSS) 7.1 or later.

For a list of supported Lumension EMSS server operating systems, refer to the *Lumension Endpoint Management and Security Suite 7.1 Server Installation Guide* (<http://portal.lumension.com>).

Supported Client Operating Systems

The Lumension Remote Systems Management plug-in is downloaded from the Lumension Endpoint Management and Security Suite (Lumension EMSS) server and installed on the local computer (the system from which you are accessing Lumension EMSS).

To fully utilize remote management functionality, the system from which you are accessing (Lumension EMSS) must be using one of the following operating systems:

Table 2: Supported Operating Systems

Operating System	Edition	Software Prerequisites
Microsoft Windows XP (x64)	Professional ⁽¹⁾	Microsoft Windows Installer 2.0+
Microsoft Windows 2003 SP1+	Web Standard Enterprise R2	Microsoft Windows Installer 2.0+
Microsoft Windows Vista	Business Enterprise Ultimate	Microsoft .NET Framework 3.0+
Microsoft Windows Server 2008	Web ⁽²⁾ Standard Enterprise	Microsoft .NET Framework 3.0+
Microsoft Windows 7	Professional Enterprise Ultimate	Microsoft .NET Framework 3.0+



Operating System	Edition	Software Prerequisites
Microsoft Windows Server 2008 R2	Standard Enterprise Web	Microsoft .NET Framework 3.0+
<p>(1) Home, Media Center, and Tablet PC editions are not supported. In addition, Microsoft Windows XP (x32) and below operating systems are not supported to utilize remote management functionality.</p> <p>(2) The Datacenter and Core Editions of this OS family are not supported.</p>		

Supported Client Browsers

The Remote Systems Management (RSM) options are accessed using the Lumension Endpoint Management and Security Suite (Lumension EMSS) Web console on your local computer (the system from which you are accessing Lumension EMSS).

The following table identifies RSM supported browsers.

Table 3: Supported Browsers

Browser	Requirements
Internet Explorer 7 or Internet Explorer 8	<ul style="list-style-type: none"> .NET Framework 3.5 SP1. For additional information, refer to <i>Other Software Requirements</i> on page 14. The RSM plug-in download requires configuring your Internet browser to communicate using a proxy server when there is an authenticated proxy between Lumension EMSS and the Global Subscription Server. For additional information, refer to <i>How to configure Internet Explorer to use a proxy server</i> (http://support.microsoft.com/kb/135982).
Mozilla Firefox 3.5.x	<ul style="list-style-type: none"> .NET Framework 3.5 SP1. For additional information, refer to <i>Other Software Requirements</i> on page 14. The .NET Framework 3.5 SP1 requires an additional add-on in Firefox. For additional information, refer to <i>Microsoft .Net Framework Assistant</i> (http://addons.mozilla.org/en-US/firefox/addon/9449/). The RSM plug-in download requires configuring your Internet browser to communicate using a proxy server when there is an authenticated proxy between Lumension EMSS and the Global Subscription Server. For additional information, refer to <i>How to configure Firefox to use a proxy</i> (http://www.how-to-hide-ip.info/2009/08/03/how-to-configure-firefox-3-5-to-use-a-proxy/).



Other Software Requirements

Using Lumension Remote Systems Management (RSM) functionality requires additional software.

The RSM plug-in requires .NET Framework 3.5 SP1 or higher be installed on your local computer (the system from which you are accessing Lumension EMSS). If .NET Framework 3.5 SP1 is not present, then the RSM plug-in provides the .NET Framework 3.5 SP1 automatically upon install.

Important: When using .Net Framework 3.5 SP1 with Firefox, an additional add-on is required. For additional information, refer to *Microsoft .Net Framework Assistant* (<https://addons.mozilla.org/en-US/firefox/addon/9449/>).

Installing the Remote Systems Management Module Server Component

To begin using the Lumension Remote Systems Management (RSM), you must first install the module server component on your Lumension Endpoint Management and Security Suite (Lumension EMSS) server.

Install the RSM platform component using the Lumension Installation Manager. For additional information on using the Lumension Installation Manager, refer to the *Lumension Endpoint Management and Security Suite 7.1 User Guide* (<http://portal.lumension.com>).

Notice: The Remote Systems Management module is considered part of the Lumension EMSS platform and is therefore listed as a platform component within Installation Manager.

1. Select **Tools > Launch Installation Manager...**

Step Result: Installation Manager opens to the *New/Update Components* tab.

2. Select the **Remote Systems Management** check box for your version number of Lumension Endpoint Management and Security Suite.
3. Click **Install**.

Step Result: The *Install/Update Components* dialog opens.

4. Click **Install**.

Step Result: A dialog opens, notifying you that installing the module may cause a logged in user to lose their work.

5. Click **OK**.

Step Result: The installation begins.



6. Click **Finish**.

Tip: Select the **Launch Lumension EMSS** check box to relaunch Lumension Endpoint Management and Security Suite after clicking **Finish**.

Result: The **Remote Systems Management** platform component is installed. To begin using the platform component, reopen Lumension Endpoint Management and Security Suite.

After Completing This Task:

Complete *Installing the Remote Systems Management Plug-In* on page 45.

Uninstalling the Remote Systems Management Module Server Component

The Lumension Remote Systems Management module server component is listed as a platform component within Lumension Installation Manager. Platform components cannot be uninstalled.

Tip: For additional information on using the Lumension Installation Manager, refer to *Lumension Endpoint Management and Security Suite 7.1 User Guide* (<http://portal.lumension.com>).

Managed Operating Systems

Each managed operating system accepts specific remote system management functionality.

The following table identifies all the supported managed operating systems and their remote management functions.

Table 4: Managed Operating Systems

Operating System	Edition	Remote Desktop Connection (RDC)	Microsoft Management Console (MMC)	NSLookup	Ping	Putty	VNC
Microsoft Windows XP SP2+	Professional ⁽¹⁾	yes	yes	yes	yes	no	yes
Microsoft Windows 2003 SP1+	Web Standard Enterprise R2	yes	yes	yes	yes	no	yes



Operating System	Edition	Remote Desktop Connection (RDC)	Microsoft Management Console (MMC)	NSLookup	Ping	Putty	VNC
Microsoft Windows Vista	Business Enterprise Ultimate	yes	yes	yes	yes	no	yes
Microsoft Windows Server 2008	Web ⁽²⁾ Standard Enterprise	yes	yes	yes	yes	no	yes
Microsoft Windows 7	Professional Enterprise Ultimate	yes	yes	yes	yes	no	yes
Microsoft Windows Server 2008 R2	Standard Enterprise Web	yes	yes	yes	yes	no	yes
Apple Mac OS X	All	no	no	yes	yes	yes	yes
HP-UX	All	no	no	yes	yes	yes	yes
IBM AIX	All	no	no	yes	yes	yes	yes
Novell SUSE Linux	Enterprise	no	no	yes	yes	yes	yes
Red Hat Linux	Enterprise AS ES WS	no	no	yes	yes	yes	yes
Oracle Solaris	All	no	no	yes	yes	yes	yes
Oracle Linux	All	no	no	yes	yes	yes	yes
CentOS Linux	All	no	no	yes	yes	yes	yes

(1) Home, Media Center, and Tablet PC editions are not supported.

(2) The Datacenter and Core Editions of this OS family are not supported.



Chapter

3

Using Lumension Endpoint Management and Security Suite

In this chapter:

- Supported Browsers
- Common Functions within Lumension Endpoint Management and Security Suite
- The Home Page

Within Lumension Endpoint Management and Security Suite (Lumension EMSS), you can use a number of common functions to navigate and operate the system. After you log in, Lumension EMSS opens to the *Home* page.

Supported Browsers

Lumension Endpoint Management and Security Suite is managed using a Web browser.

The following list defines the Web browsers supported by Lumension Endpoint Management and Security Suite, along with other software required to use all Lumension Endpoint Management and Security Suite functions.

- Internet Information Services (IIS) 6.0 or later.
- One of the following; Microsoft Internet Explorer 7, Microsoft Internet Explorer 8, or Mozilla Firefox 3.5.x.
- Microsoft Silverlight™.

Logging In to Lumension Endpoint Management and Security Suite

Lumension Endpoint Management and Security Suite (Lumension EMSS) is an Internet application that conforms to standard Web conventions. You can access the application's console from a Web browser. Log in to the Lumension EMSS Server to begin using product features.

Prerequisites:

Microsoft Internet Explorer 7, Microsoft Internet Explorer 8, or Mozilla Firefox 3.5.x. must be installed.

You can access the console from any endpoint within your network.

1. Open your Web browser.
2. In your browser's address bar, type the Lumension EMSS URL (`http[s]://ServerIPAddress`).



3. Press **ENTER**.

Step Result: The *Connect to* dialog opens.



Figure 1: Connect to Dialog

Note: If using Mozilla Firefox, the dialog appears differently.

4. Type your user name in the **User name** field.

When logging in for the first time, type the user name of the Windows user account used to install Lumension EMSS. You can use additional user names after adding new user profiles to Lumension EMSS. If logging in using a domain account, type the name in the following format: `DOMAIN\Username`.

5. Type your password in the **Password** field.
6. Click **OK**.

Result: Lumension EMSS opens to the *Home* page.

Logging Out of Lumension Endpoint Management and Security Suite

After you finish using Lumension Endpoint Management and Security Suite (Lumension EMSS), log out of the system to ensure no unauthorized users access the console.

1. Browse to the navigation menu.



2. Click **Log Out**.

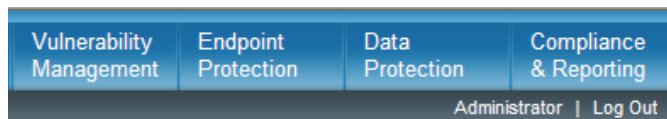


Figure 2: Log Out Link

Result: You are logged out of Lumension EMSS, and the *Logout* page displays.

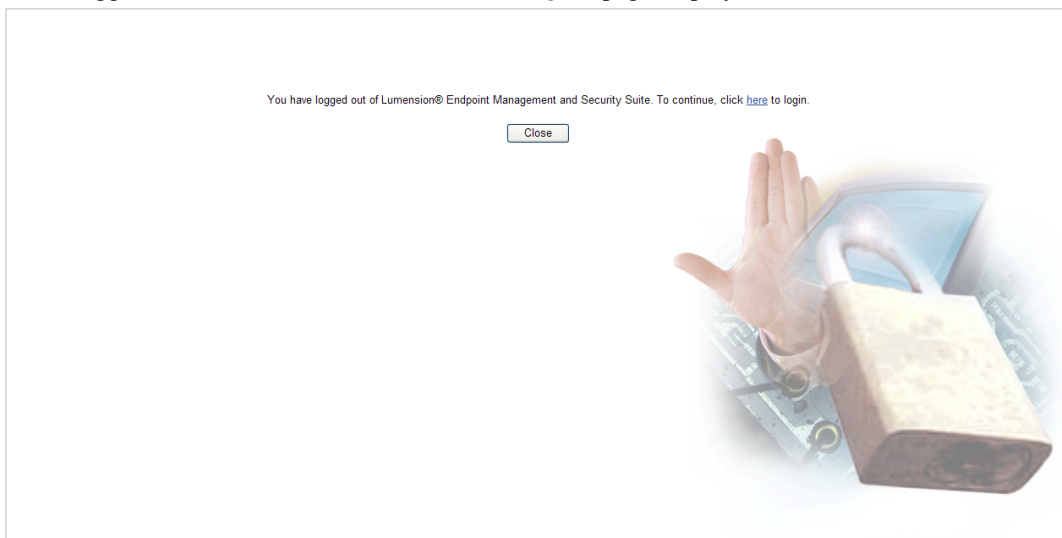


Figure 3: Log Out Page

Common Functions within Lumension Endpoint Management and Security Suite

Lumension Endpoint Management and Security Suite (Lumension EMSS) uses both standard Web browser conventions and functions specific to itself. Familiarity with these common functions facilitate efficient product use.

From the navigation menu and system pages, you can access all features and functions your access rights authorize. The topics that follow provide instructions on how to use common functions.



Common Conventions

This application supports user interface conventions common to most Web applications.

Table 5: Common User Interface Conventions

Screen Feature	Function
Entry Fields	Type data into these fields, which allow the system to retrieve matching criteria or to enter new information.
Drop-Down Menus	Displays a list to select preconfigured values.
Command Buttons	Perform specific actions when clicked.
Check Boxes	A check box is selected or cleared to enable a feature, disable a feature, or initiate function for a list item. Some lists also include a Select All check box that lets you select all the available listed items on that page.
Radio Buttons	Select the button to select an item.
Sort	Data presented in tables can be sorted by ascending (default) or descending order within a respective column by clicking on a (enabled) column header.
Mouseovers	Additional information may be displayed by hovering your mouse pointer over an item.
Auto Refresh	Where present and when selected, the auto refresh function automatically refreshes the page every 15 seconds.
Scrollbars	Drag to see additional data that does not fit the window.
Tabs	Click on the tab name to switch to different information related to the specific page or dialog.
Bread Crumb	Names the page you are currently viewing, that page's parent page (if applicable), and the navigation menu item that opened the displayed page. If viewing a page that is child of another page, you can view the parent page by clicking the bread crumb, which also serves as a link, allowing you to retrace your steps.
Tip: Most system pages support right-click.	



Toolbars

Toolbars appear near the top of most system pages. These toolbars contain menus and buttons that let you use product features specific to the displayed page.

The menus and buttons displayed vary according to page. Additionally, user access rights determine which buttons are available for use. Click the available buttons and menus to use them.



Figure 4: Toolbar

List Pages

Most Lumension Endpoint Management and Security Suite pages feature lists of selectable items. These items represent a series of product features that can be edited using menus and buttons.

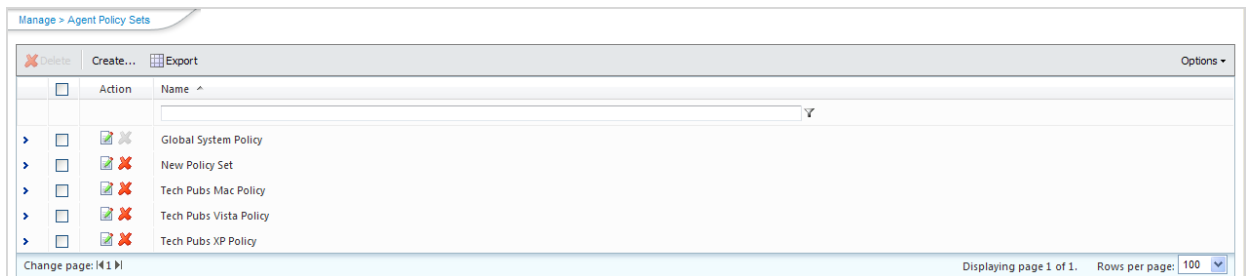


Figure 5: List Page

You can select individual list items. To select a list item:

- Select a check box.
- Click a list row.

You can select multiple list items. To select multiple list items:

- Select all list items by selecting the **Select All** check box.
- Select multiple, non-concurrent items by using **CTRL+Click** over list rows or check boxes.
- Select multiple, concurrent items by using **SHIFT+Click** over list rows or check boxes.

The Page Banner

A page banner displays on Lumension Endpoint Management and Security Suite pages that pertain to a specific module component. Use this banner to identify the module that the page belongs to.

For example, pages pertaining to Lumension Patch and Remediation display a Patch and Remediation page banner. Page banners are color coded by module.



Figure 6: Page Banner Example



The Options Menu

Toolbars feature an **Options** menu, whose function is to set page views, filter data, and enable clipboard copy. Menu items vary based on the functions applicable to the selected page.

The following functions can be found on the **Options** menu.

Table 6: Options Menu Items

Option	Description
Show results on page load	If enabled, automatically provides query results based on the default filters. If disabled, you must define the available page filters and click Update View to view query results. For more information, see Filters on page 22.
Save as default view	Saves the current visual setting as the default view for the selected page and the logged in user.
Clear default view	Resets a saved default view to the system default view. Note: This option is only available on certain pages.
Show Group By Row	Sorts list items into groups based on column headers. For more information, see Group By on page 25.
Enable Copy to Clipboard	Enables selected text to be copied to the clipboard and pasted into a text editor. Note: Selecting this option disables other features, such as the right-click context menu, or dragging to select multiple list items.
Note: Some menu item titles change according to context. For example, if you select Show Group By Row to view the Group By row, the menu item title changes to Hide Group By Row .	

Filters

Filters appear on most list pages. You can use them to search pages for specific data.

Depending on which page you viewing, you can filter pages using one of the following features. Only one feature appears per page.

- Filters
- Filter Row

Filters

Filters appear above page lists. They feature different fields, lists, and check boxes used for filtering. Filters vary according to page.

Username: Role:

Figure 7: Filters



Additionally, you can save frequently used filter settings as your default view. To save your filter criteria, select a list page and choose **Options > Save as default view** from the toolbar. The toolbar **Options** menu contains the following options related to filtering.

Table 7: Filter Options

Option	Function
Show results on page load	Automatically retrieves and displays results when selected.
Save as default view	Saves the active filter and sort criteria as the default view for the page. The default view displays each time the page is accessed. You can change this setting at any time.
Clear default view	Resets a saved default view to the system default view.

Note: Your default view remains applicable until you save a new default view or clear the default view, even after browsing to a different page or logging out of Lumension Endpoint Management and Security Suite.

Filter Rows

Filter rows appear in the lists themselves. Rows feature a field for each column. Columns can be filtered using a variety of data types. For example, you can use a **Contains** filter or a **StartsWith** filter.

<input type="checkbox"/>	Action	Name ^	Description	Distinguished Name	Devices
		My Group <input type="text"/>	Custom Group <input type="text"/>	<input type="text"/>	<input type="text"/>

Figure 8: Filter Row

These filter are not case sensitive. Additionally, date columns filter at the lowest level of granularity; higher levels of granularity return no filter results.

Using Filters

Use filters to search for specific list items when performing other tasks.

Filters are available on most list pages.

1. Select a list page. For additional information, refer to [List Pages](#) on page 21.
2. Ensure filters are displayed.
If filters are not displayed, click **Show Filters**.
3. Define filter criteria.

Note: Available filters differ by page.

- In filter fields, type the desired criteria.
- From filter lists, select the desired list item.

4. If applicable, select the **Include sub-groups** check box.

Note: This check box only appears on list pages related to groups.



5. Click **Update View**.

Step Result: The list is filtered according to the filter criteria.

6. If desired, save the filter criteria by selecting **Options > Save as default view** from the toolbar.

Using Filter Rows

Some list pages use filter rows rather than filters. Use these rows, which are the first row of applicable lists, to filter column results.

These rows appear on several list pages.

1. Select a page featuring the filter row.

2. Ensure the filter row is displayed.

If the filter row is not displayed, select **Options > Show Filter Row** from the toolbar.

3. Type criteria in the applicable filter row field.

4. Apply a filter type.

a) Click the applicable **Filter** icon.

Step Result: A menu opens.

b) Select a filter type.

The following table describes each filter type.

Table 8: Data Filtering Types

Type	Description
NoFilter	Removes previously applied filtering.
Contains	Returns results that contain the value applied to the filter.
DoesNotContain	Returns results that do not contain the value applied to the filter.
StartsWith	Returns results that start with the value applied to the filter.
EndsWith	Returns results that end with the value applied to the filter.
EqualTo	Returns results equal to the value applied to the filter.
NotEqualTo	Returns results that are not equal to the value applied to the filter.
Greater Than	Returns results that are greater than the value applied to the filter.
Less Than	Returns results that are less than the value applied to the filter.
GreaterThanOrEqualTo	Returns results that are greater than or equal to the value applied to the filter.
LessThanOrEqualTo	Returns results that are less than or equal to the value applied to the filter.
Between	Returns results that are between two values. Place a space between the two values.



Type	Description
NotBetween	Returns results that are not between two values. Place a space between the values.
IsEmpty	Returns results that are empty.
NotIsEmpty	Returns results that are not empty.
IsNull	Returns results that have no value.
NotIsNull	Returns results that have a value.

Note: Text filters are case sensitive. Date columns filter at the lowest level of granularity; higher levels of granularity return no filter results. The availability of filtering options is dependent on the type of data displayed in the column. For example, filtering options that can only apply to numeric data will not be available in columns that contain text data or a mix of text and numeric data.

Result: The list column is filtered according to the criteria. If desired, repeat the process to filter additional columns.

Group By

The **Group By** row lets you sort list items into groups based on column headers.

To use the **Group By** row, ensure **Options > Show Group By Row** is selected from the toolbar, and then drag a column header into the row. You may drag multiple columns to the row, but you may only drag one column into the row at a time.

To ungroup the list, right-click on the row and select **Cancel All Groupings**. To hide the **Group By** row, select **Options > Hide Group By Row**.

Drag a column header and drop it here to group by that column						
<input type="checkbox"/>	Name	Creator	Scheduled Time	Frequency	Last Status	Last Status Time
<input type="checkbox"/>	Discovery	sa	11/14/2008 11:56:00 PM	One Time	Finished	11/14/2008 11:56:33 PM
<input type="checkbox"/>	Discovery	sa	11/14/2008 11:56:00 PM	One Time	Finished	11/14/2008 11:56:33 PM
<input type="checkbox"/>	Discovery	sa	11/14/2008 11:56:00 PM	One Time	Finished	11/14/2008 11:56:33 PM

Figure 9: Group By Row



Expanding and Collapsing Structures

Certain structures in Lumension Endpoint Management and Security Suite are expandable and collapsible. Expand structures to view additional available information or options. Collapse them to conserve screen space. Click available **Plus** icons (+), **Minus** icons (-), and **Rotating Chevron** icons (>) to expand or collapse a structure.

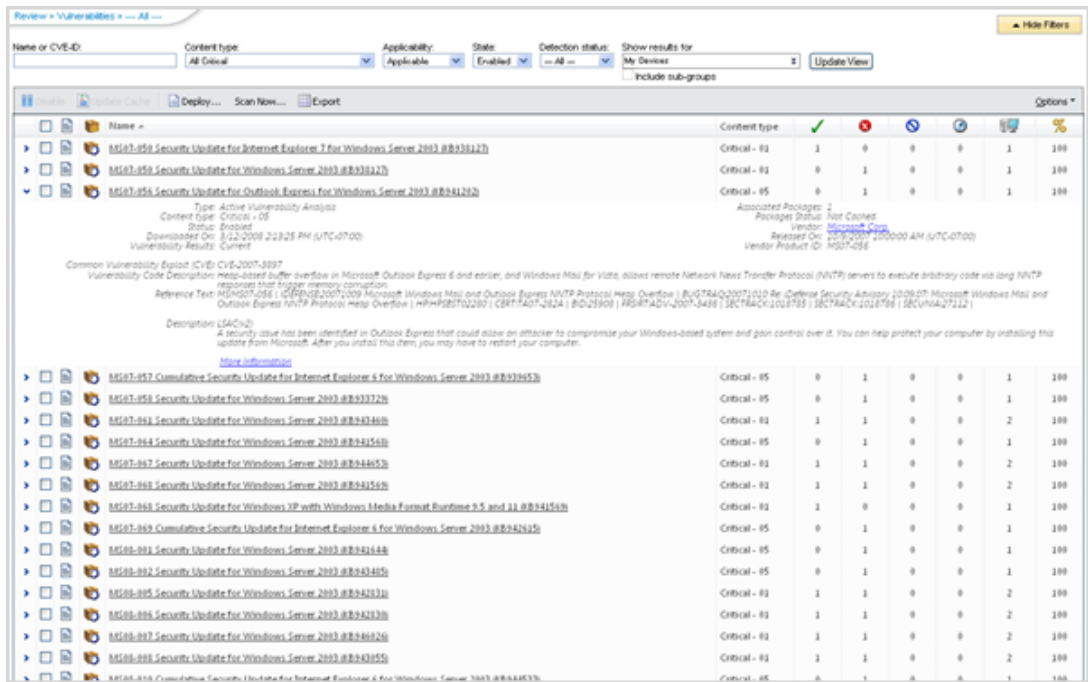


Figure 10: Expandable/Collapsible Structure Example

Advancing Through Pages

Lumension Endpoint Management and Security Suite features links to page through large lists.





Click the links to page through lists. The number of list items and the specific page you are viewing determines the number of pagination links.

Change page: < 1 2 3 4 5 6 7 8 9 10 ... >

Figure 11: Pagination Feature

Lumension Endpoint Management and Security Suite also features a **Rows Per Page** drop-down list. From this list, you can select the number of items that populate a list.

Table 9: Pagination Feature Functions

Icon or Link	Title	Function
	Final Page Link	Advances to the final page of list items.
	First Page Link	Returns to the first page of list items.
	Next Ten/Previous Ten Pages Link	Displays the next ten or previous ten page links available. Fewer page links will display if the remaining list items cannot populate ten pages.
	Pagination Links	Advances or returns to the selected pagination link.

Each page also features a **Rows Per Page Drop-Down List**. This list modifies the number of list items displayed on a single page (25, 50, 100, 200, 500).

Help

Lumension Endpoint Management and Security Suite contains context-sensitive HTML (.html) help. Help provides product feature explanations, step-by-step procedures, and reference materials.

Accessing help differs according to context.

- From a page, select **Help > Help Topics**.
- From a dialog, click the **Question Mark** icon (?).

Accessing help displays information that is useful for your current context.

Exporting Data

On many system pages, you can export the listed data to a comma separated value file (.csv) available for use outside of Lumension Endpoint Management and Security Suite (Lumension EMSS). Use this exported data for management purposes (reporting, noting trends, and so on).

You can export data from a variety of Lumension EMSS pages.

Note: These instructions are intended for Microsoft Internet Explorer users. If you are using Mozilla Firefox, this procedure differs slightly.

Important: The Enhanced Security Configuration feature for Internet Explorer suppresses export functionality and must be disabled to export data successfully. Pop-up blockers in Internet Explorer or other supported browsers may also suppress export functionality and should be disabled.

1. Select a list page (or dialog) where you can export information.
2. If necessary, populate the page by defining filter criteria and clicking **Update View**.
3. Click **Export**.

Step Result: The *File Download* dialog opens.



4. In the *File Download* dialog, select from one of the following options.

Option	Description
Open	Creates the file and opens it in your default (.csv) program.
Save	Creates the file and saves it to a specified local folder. The file is saved in a Microsoft Office Excel (.csv) format. The file is named <i>Export.csv</i> , with the exported file containing data based on list data.
Cancel	Cancels the export.

Note: All data results will export, not just the selected results.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Device Name	Hardware Class	Hardware Item											
2	\\TP-VAGENT	Architecture	x86											
3	\\TP-VAGENT	Batteries	Microsoft AC Adapter											
4	\\TP-VAGENT	BIOS	PTLTD - 6040000 PhoenixBIOS 4.0 Release 6.0 Date: 07/22/08											
5	\\TP-VAGENT	BIOS Asset Tag	No Asset Tag											
6	\\TP-VAGENT	Computer	ACPI x86-based PC											
7	\\TP-VAGENT	Computer	OS Serial Number = 55041-037-8318942-71732											
8	\\TP-VAGENT	Computer	Virtualization = VMWare											
9	\\TP-VAGENT	Disk drives	VMware Virtual disk SCSI Disk Device											
10	\\TP-VAGENT	Display adapters	VMware SVGA II											
11	\\TP-VAGENT	DVD/CD-ROM drives	NECVMWAr VMWare IDE CDR00 ATA Device											
12	\\TP-VAGENT	File Systems	C:\ Type:NTFS Free:0.961 GB Total:7.997 GB											
13	\\TP-VAGENT	Floppy disk drives	Floppy disk drive											
14	\\TP-VAGENT	Floppy drive controllers	Standard floppy disk controller											
15	\\TP-VAGENT	IDE ATA/ATAPI controllers	ATA Channel 0											
16	\\TP-VAGENT	IDE ATA/ATAPI controllers	Intel(R) 82371AB/EB PCI Bus Master IDE Controller											

Figure 12: Exported Data

The Home Page

The entry point to Lumension Endpoint Management and Security Suite (Lumension EMSS) is the *Home* page. From this page you can view the dashboard, which features draggable widgets that display information about Lumension EMSS and agent-managed endpoints.

Some widgets display general information about the system, others provide links to documentation, and still others summarize activity for Lumension EMSS modules you are licensed for.

Figure 13: The Home Page

The Lumension Endpoint Management and Security Suite Header

The product header appears at the top of all Lumension Endpoint Management and Security Suite Web site pages.



Figure 14: Header

This header contains links for information about various Lumension products. Clicking one of these links opens a new window that pertains to the applicable product.

The Navigation Menu

This menu appears on all Lumension Endpoint Management and Security Suite pages. Use this menu to navigate through the console.

This menu organizes product features based on functionality. When you select a menu item (or sub-menu item), a new page, dialog, wizard, or window opens. You can access all features of the system from this menu (that your access rights authorize).

Note: The menu items available change based on the installed Lumension Endpoint Management and Security Suite modules.



Figure 15: Navigation Menu

The navigation menu contains the several menus, which are organized based on functionality.

Table 10: Navigation Menus

Menu	Description
Home	Opens the <i>Home</i> page. This link contains no menu items.
Discover	Contains menu items related to running discovery scan jobs.
Review	Contains menu items related to reviewing security content and discovery scan jobs.
Manage	Contains menu items related to managing system features.
Reports	Contains menu items related to creating reports.
Tools	Contains menu items related to system administration.
Help	Contains menu items related to help systems.

Tip: When a menu item is selected, the navigation menu text is underlined to display its active state.

Most navigation menus contain items. The following table lists each menu item in the **Discover** menu and the actions that occur when they are selected.

Table 11: Discover Menu Items

Menu Item	Description
Assets...	The <i>Discover Assets</i> dialog.
Assets and Install Agents...	The <i>Install Agents</i> dialog.
Assets and Uninstall Agents...	The <i>Uninstall Agents</i> dialog.



The following table lists each menu item in the **Review** menu and the actions that occur when they are selected.

Table 12: Review Menu Items

Menu Item	Description
Asset Discovery Job Results	Opens the <i>Job Results</i> page, which is filtered to display discovery job results.
Agent Management Job Results	Opens the <i>Job Results</i> page, which is filtered to display agent management job results.

The following table lists each menu item in the **Manage** menu and the actions that occur when they are selected.

Table 13: Manage Menu Items

Menu Item	Description
Endpoints	Opens the <i>Endpoints</i> page.
Groups	Opens the <i>Groups</i> page.
Agent Policy Sets	Opens the <i>Agent Policy Sets</i> page.

The following table lists each menu item in the **Reports** menu and the actions that occur when they are selected.

Table 14: Reports Menu Items

Menu Item	Description
All Reports	Opens the <i>All Reports</i> page.
Configuration	Opens the <i>All Reports</i> page with configuration reports expanded.
Inventory	Opens the <i>All Reports</i> page with inventory reports expanded.
Policy and Compliance	Opens the <i>All Reports</i> page with policy and compliance reports expanded.

The following table lists each menu item in the **Tools** menu and the actions that occur when they are selected.

Table 15: Tools Menu Items

Menu Item	Description
Users and Roles	Opens the <i>Users and Roles</i> page.
Change My Password...	Opens the <i>Change My Password</i> dialog.
Download Agent Installer...	Opens the <i>Download Agent Installer</i> dialog opens over the currently selected page.
Launch Installation Manager...	Opens the <i>Lumension Installation Manager</i> in a new window.
Subscription Updates	Opens the <i>Subscription Updates</i> page.



Menu Item	Description
Directory Sync Schedule	Opens the <i>Directory Sync Schedule</i> page.
Email Notifications	Opens the <i>Email Notifications</i> page.
Options	Opens the <i>Options</i> page.

The following table lists each menu item in the **Help** menu and the actions that occur when they are selected.

Table 16: Help Menu Items

Menu Item	Description
Help Topics...	Opens the <i>Help</i> page.
Help Forums...	Opens the Lumension message boards.
Knowledge Base...	Opens the Lumension knowledge base.
New Users Start Here...	Opens the <i>New Users Start Here</i> page.
Technical Support	Opens the <i>Technical Support</i> page.
Product Licensing	Opens the <i>Product Licensing</i> page.
About...	Opens the <i>About</i> dialog.

Note: Any unavailable or absent menus, menu items, or sub-menu items are due to restricted access rights or unavailable modules. Contact your network administrator if you require access to unavailable features.

The Dashboard

The **dashboard** displays widgets depicting the activity on your protected network. Located on the *Home* page, the dashboard provides convenient information you can use to ensure your network protection is up to standard. Additionally, you can customize the dashboard to display the widgets most applicable to your network environment.

Widget graphs are generated based on the latest data and statistics available from endpoints, groups, module-specific data, and so on.

The following **Dashboard** widgets are available:

- [The Agent Module Installation Status Widget](#) on page 32
- [The Agent Status Widget](#) on page 33
- [The Discovery Scan Results: Agent Widget](#) on page 34
- [The Last Five Completed Scan Jobs Widget](#) on page 35
- [The Latest News Widget](#) on page 35
- [The Next Five Pending Scan Jobs Widget](#) on page 36
- [The Server Information Widget](#) on page 36



The Agent Module Installation Status Widget

This widget displays the installation and licensing stats of each agent module.

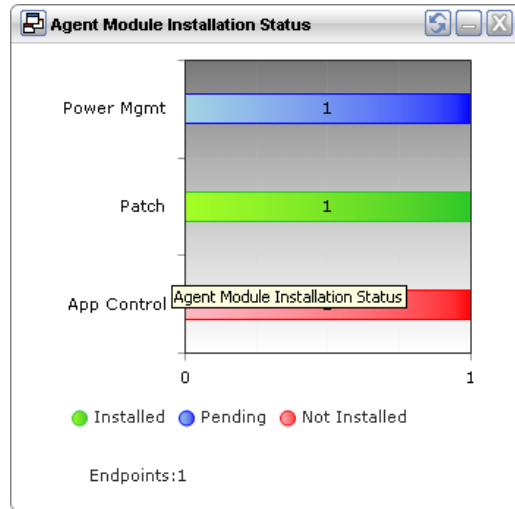


Figure 16: Agent Module Installation Status Widget

A graph bar displays for each installed module. The following table describes the widget graph(s).

Table 17: Graph Bar Color Descriptions

Bar Color	Description
Blue	The number of managed endpoints with the applicable module pending installation or uninstallation.
Green	The number of managed endpoints with the applicable module installed.
Red	The number of managed endpoints without the applicable module installed.

Tip: Click the graph to open the *Endpoints* page *All* tab.

Note: Endpoints with an agent version that does not support a module are not counted.



The Agent Status Widget

This widget displays all agents grouped by agent status.

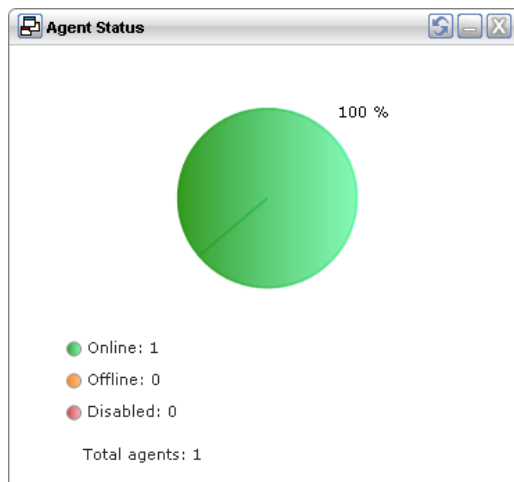


Figure 17: The Agent Status Widget

The following table describes the fields in the **Agent Status** widget.

Table 18: Agent Status Widget Fields

Field	Description
Online	The number of agents that are online.
Offline	The number of agents that are offline. Note: Offline status is determined by the amount of time since the agent last communicated as determined on the <i>Options</i> page.
Disabled	The number of agents that are disabled.
Total Agents	The total number of agents in your environment.
Tip: Clicking on the pie chart opens the <i>Endpoints</i> page <i>All</i> tab. The page is filtered to display all agents.	



The Discovery Scan Results: Agent Widget

This widget displays the number endpoints capable of hosting agents (agent-compatible endpoint) discovered in the latest discovery scan job. The endpoints discovered are classified in to two groups: endpoints with agents and endpoints without agents.

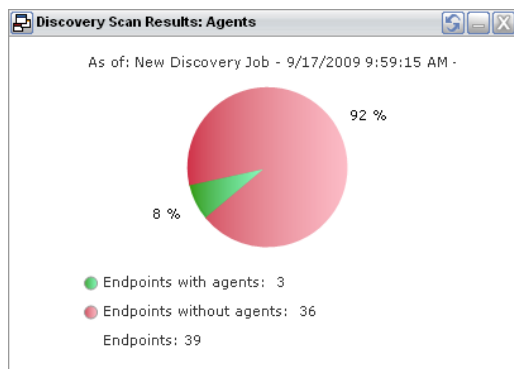


Figure 18: Discovery Scan Results Widget

The following table describes the **Discovery Scan Results: Agent** widget fields.

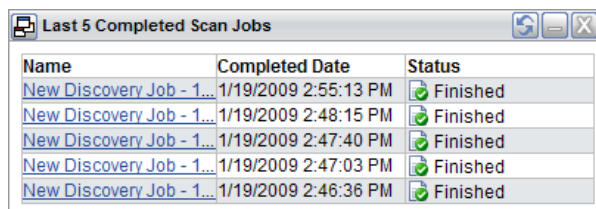
Table 19: Discovery Scan Results Widget Fields

Field	Description
As of	The name of the discovery scan job used to generate the widget graph and statistics. This job is the job most recently run.
Endpoints with agents	The number of agent-compatible endpoints discovered that have agents installed.
Endpoints without agents	The number of agent-compatible endpoints discovered that have no agents installed.
Endpoints	The total number of agent-compatible endpoints discovered.
<p>Tip: Clicking the Discovery Scan Results: Agent widget opens the Results page for the most recently run discovery scan job.</p>	



The Last Five Completed Scan Jobs Widget

This widget contains information about the last five completed scan jobs. Each job name is a link to the associated **Result** page.



Name	Completed Date	Status
New Discovery Job - 1...	1/19/2009 2:55:13 PM	Finished
New Discovery Job - 1...	1/19/2009 2:48:15 PM	Finished
New Discovery Job - 1...	1/19/2009 2:47:40 PM	Finished
New Discovery Job - 1...	1/19/2009 2:47:03 PM	Finished
New Discovery Job - 1...	1/19/2009 2:46:36 PM	Finished

Figure 19: Last Five Completed Scan Jobs Widget

The following table describes each column in the **Last Five Completed Jobs** widget.

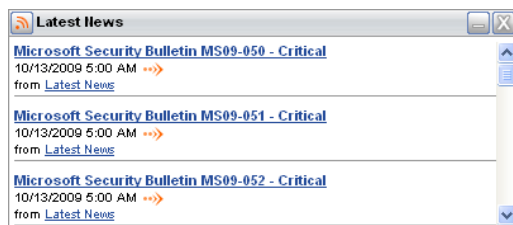
Table 20: Last Five Completed Scan Jobs Widget Columns

Column	Description
Name	The job name. The name is a link to the associated Results page.
Completed Date	The date and time the job completed on the server.
Status	The status of the completed job.

The Latest News Widget

This widget displays important announcements and other information regarding Lumension Endpoint Management and Security Suite.

Click a **Latest News** link to view additional details about an announcement in a new window.



Microsoft Security Bulletin MS09-050 - Critical
10/13/2009 5:00 AM >>>
from Latest News
Microsoft Security Bulletin MS09-051 - Critical
10/13/2009 5:00 AM >>>
from Latest News
Microsoft Security Bulletin MS09-052 - Critical
10/13/2009 5:00 AM >>>
from Latest News

Figure 20: Latest News Widget



The Next Five Pending Scan Jobs Widget

This widget displays information about the next five pending discovery scan jobs. Each job name is a link to the *Discovery Scan Jobs* page *Scheduled* tab.



Name	Scheduled Time
Later Job	4/17/2009 7:00:00 PM
New Discovery Job - 4/17/2009 10:52:19 AM	4/17/2009 8:00:00 PM
My Job	4/17/2009 9:00:00 PM
New Discovery Job - 4/15/2009 4:10:12 PM	4/22/2009 5:00:00 PM
4/15/2009 4:10:12 PM	4/22/2009 5:00:00 PM

Figure 21: Next Five Pending Scan Jobs Widget

The following table describes the **Next Five Pending Scan Jobs** widget columns.

Table 21: Next Five Pending Scan Jobs Widget Columns

Column	Description
Name	The job name. Each name is a link to the <i>Discovery Scan Jobs</i> page <i>Scheduled</i> tab.
Scheduled Time	The date and time the job is scheduled to run on the server.

The Server Information Widget

This widget lists your serial number, number of licenses available, number of licenses in use, and information about current license usage and availability for Lumension Endpoint Management and Security Suite (Lumension EMSS).

Figure 22: Server Information Widget

The following table describes the fields in the **Server Information** widget.

Table 22: Server Information Widget Fields

Field Name	Description
Company	The company Lumension EMSS is registered to as defined during installation.
Serial number	Lumension EMSS license number (serial number) assigned to your server.
License replication	The subscription status between Lumension EMSS and the Global Subscription Server (GSS).
System replication	The system replication status between Lumension EMSS and the GSS.

The following table describes the **Product Licenses** table columns. A row appears for each purchased module.

Table 23: Product Licenses Table Columns

Column	Description
Product Module	The module for which you purchased licenses.









Column	Description
In Use	The number of module licenses in use.
Pending	The number of licenses pending use or pending removal. Licenses pending removal become available upon removal completion.
Available	The number of licenses available.
Note: A license expiration notice displays if all available licenses are expired.	

Dashboard Setting and Behavior Icons

Setting and behavior icons are UI controls used to manage the dashboard. Click these icons to maximize, minimize, hide, and refresh the dashboard and widgets.

The following table describes each icon action.

Table 24: Widget Setting and Behavior Icons

Icon	Action
	Opens the <i>Dashboard Settings</i> dialog.
	Opens the dashboard in print preview mode.
	Collapses the associated widget.
	Expands the associated collapsed widget.
	Hides the associated widget.
	Refreshes the associated widget (or the entire dashboard).
Note: Not all widgets contain Refresh icons.	

Previewing and Printing the Dashboard

When viewing the dashboard, you can reformat it for printing purposes. This print preview omits the Web site's header and footer, reorganizing the dashboard to display only the selected widgets, making it ideal for printing.

View the print preview from the *Home* page.

1. Select **Home** from the navigation menu.
2. Click the **Print** icon.

Step Result: The dashboard print preview opens in a new Web browser window.



3. If desired, use your Web browser controls to print the dashboard.

Editing the Dashboard

Lumension Endpoint Management and Security Suite lets you define how dashboard widgets are arranged and prioritized. Edit the dashboard to display only the widgets that are most useful when managing your network environment.

Edit the dashboard from the *Dashboard Settings* dialog.

1. From the navigation menu, select **Home**.
2. Click the **Settings** icon.

Step Result: The *Dashboard Settings* dialog opens.



Figure 23: Dashboard Settings Dialog

3. Choose which widgets you want to display on the dashboard.
 - Select the check box associated with the applicable widget to display it.
 - Clear the check box associated with the applicable widget to hide it.
4. Prioritize the widgets in the desired order.
 - Click the applicable **Increase Priority** icon to increase a widget priority.
 - Click the applicable **Decrease Priority** icon to decrease a widget priority.

Highly prioritized widgets appear in the dashboard upper-left corner, while lowly prioritized widgets appear in the lower-right.

5. Display or hide widget descriptions.
 - Click the **Display Descriptions** icon to display descriptions.
 - Click the **Hide Descriptions** icon to hide description.



6. Choose a widget layout.
 - Click the **Two Column** icon to make widgets appear in two columns.
 - Click the **Three Column** icon to make widgets appear in three columns.
7. Click **OK**.

The System Alert Pane

The *System Alert* pane is an expandable window that provides information about changing conditions on your Lumension Endpoint Management and Security Suite server. The System Alert pane displays information about required actions with links to related help topics to assist you with tasks.

The System Alert pane displays on the left side of the dashboard and shows the number of alerts that require your attention. You can drag the right edge of the pane to resize the System Alert pane within the dashboard.

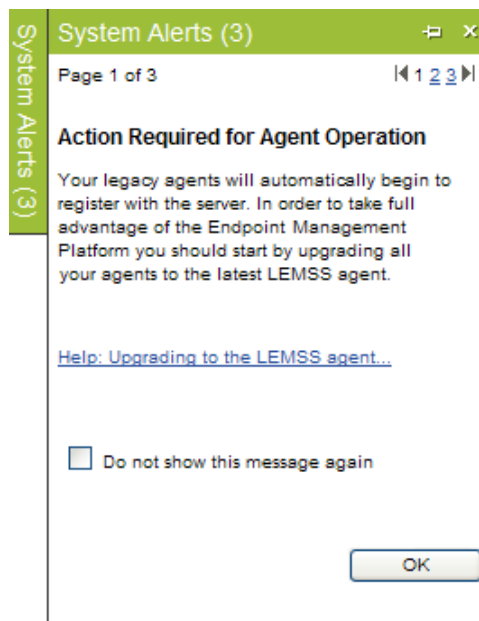


Figure 24: The System Alert Pane

The following functions can be found in the *System Alert* pane.

Table 25: Options Menu Items

Option	Description
Pin (icon)	Docks the System Alert pane open. Clicking this icon again will collapse the System Alert pane.
Pagination Links	Allows you to navigate between alerts. For more information, see Advancing Through Pages on page 26.
Action Link	Opens the appropriate application page, external Web page, or context-sensitive help topic, depending on the action specified in the alert.



Option	Description
Don't show this again (check box)	Collapses the <i>System Alert</i> pane. The alert shown in the <i>System Alert</i> pane when this check box is selected will no longer be shown.
OK (button)	Collapses the <i>System Alert</i> pane.

Note: Dismissing a notification only dismisses the notification for the user you are currently logged in as. The notification still displays for other users. Additionally, the system automatically dismisses alerts as you complete their related actions, regardless of whether you manually dismiss those alert.

License Expiration

The Lumension Endpoint Management and Security Suite and its modules are licensed for a prepaid period. When you purchase a module, you purchase a license for the module itself and the module function for a set number of agents. After the license period expires, you must renew your licenses.

The following table describes the different licensing expiration scenarios and the events that follow.

Note: When a subscription expires, the applicable module history and configuration is retained so no work is lost when the module is renewed.

Table 26: License Expiration Scenario and Events

Scenario	Event(s)
Lumension EMSS Module Expiration	<ul style="list-style-type: none"> All menu items and features related to the module are disabled. Functionality for all agent components for the module is partially disabled (function disabled varies by module). Agent components for the module cannot be installed on agents that do not already have the module installed. <i>Module Installed</i> statuses for affected endpoints change from <i>Installed</i> to <i>Expired</i> on the <i>Endpoints</i> page. The Available license count for the module changes to 0 in the Server Information widget.
Lumension EMSS Module Agent Expiration	<ul style="list-style-type: none"> Functionality for all agent components for the module (in the license block) is partially disabled (functions disabled varies by module). Agent components for the module cannot be installed on agents that do not already have the module installed. <i>Module Installed</i> statuses for affected endpoints change from <i>Installed</i> to <i>Expired</i> on the <i>Endpoints</i> page. The Available license count for the module changes to 0 in the Server Information widget.



To reactivate your licenses following renewal, select the *Subscription Updates* page and click **Update Now**. The license verification process begins and connects to the Global Subscription Server, retrieving updated license information. The page refreshes following update completion, and all previous module functionality is restored.

Note: For more information about renewing or adding licenses, contact *Lumension Sales Support* (patchlink.sales@lumension.com).





Chapter 4

Using Lumension Remote Systems Management

In this chapter:

- Management Options
- The Manage Remotely Menu
- Remote Systems Management Plug-In
- Manage Remotely Access Right
- The Remote Desktop Connection
- MMC: Computer Management
- The NSLookup MS-DOS Command
- The Ping MS-DOS Command
- PuTTY: Remote Management Tool
- The Virtual Network Connection

The Remote Systems Management functionality is accessed by selecting **Manage Remotely** on the *Endpoint Details* page.

The *Endpoints Details* page contains a listing of all endpoints that have an agent registered with the Lumension Endpoint Management and Security Suite.

Tip: The *Endpoint Details* page can be found by selecting **Manage > Endpoints**. Click the **Name** link to open the *Endpoint Details* page.



Management Options

The *Endpoint Details* page contains tabs which allow access to endpoint details. The **Information** tab, contains the **Manage Remotely** menu option, allowing you to manage endpoints.

To access the **Manage Remotely** menu option, the Remote Systems Management platform component must be installed on the Lumension Endpoint Management and Security Suite server. Refer to *Installing the Remote Systems Management Module Server Component* on page 14 for installation information.

Note: To use remote management options requires the installation of the Remote Systems Management plug-in. If the plug-in is not already installed, you will be prompted to install it. For additional information, refer to *Installing the Remote Systems Management Plug-In* on page 45.

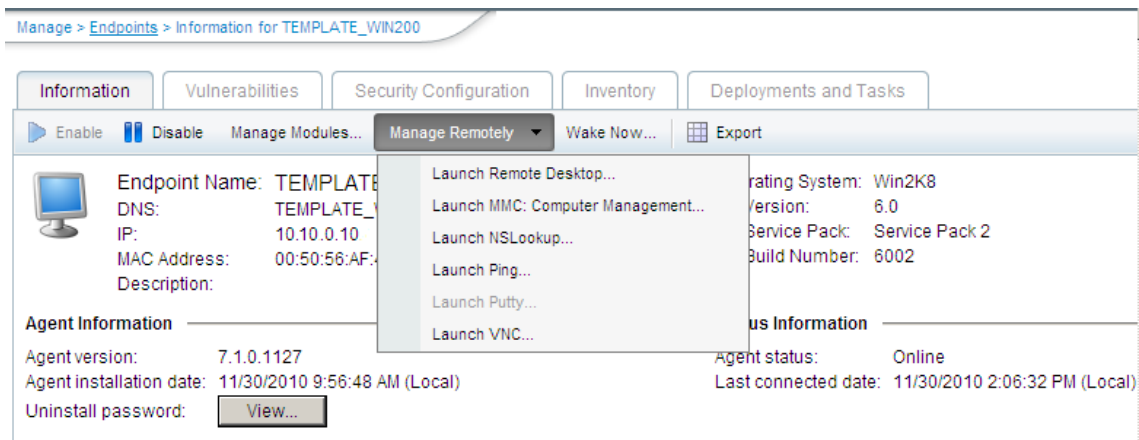


Figure 25: Remote Management Options

The Manage Remotely Menu

The **Manage Remotely** menu provides access to tools you can use to connect to remote endpoints.

The following table lists each menu item in the **Manage Remotely** menu and the actions that occur when they are selected.

Table 27: Manage Remotely Menu Items

Menu Item	Description
Launch Remote Desktop...	Launches the log in page for the Windows Remote Desktop Connection (RDC), which allows you connect to a computer in another location.
Launch MMC: Computer Management...	Launches the Microsoft Management Console (MMC), which allows you to manage and monitor Windows systems.

Menu Item	Description
Launch NSLookup...	Launches the <code>NSLOOKUP</code> MS-DOS command, which displays a reverse lookup on an IP address by querying the Domain Name System (DNS) server of the endpoint computer.
Launch Ping...	Launches the <code>PING</code> MS-DOS command, which verifies that a particular IP address exists and can accept requests.
Launch Putty...	Launches PuTTY, a remote management tool that allows you to remotely control targeted computers over the Internet.
Launch VNC...	Launches the log in page for the Virtual Network Connection (VNC), which allows you to remotely access another computer.

Remote Systems Management Plug-In

The Remote Systems Management plug-in is downloaded from the Lumension Endpoint Management and Security Suite (Lumension EMSS) server and installed on the local computer (the system from which you are accessing Lumension EMSS).

Once installed, the plug-in allows you to remotely manage endpoints from the Lumension EMSS Web console.

Installing the Remote Systems Management Plug-In

If the Remote Systems Management plug-in is not already installed on the local computer (the system from which you are accessing Lumension Endpoint Management and Security Suite Web console), you will be prompted to install the plug-in when you select a management link from the **Manage Remotely** option.

Prerequisites:

- A client supported operating system. For additional information, refer to [Supported Client Operating Systems](#) on page 12.
- The .NET Framework 3.5 SP1. For additional information, refer to [Other Software Requirements](#) on page 14.
- A supported browser. For additional information, refer to [Supported Client Browsers](#) on page 13.
- Verify endpoint operating system compatibility. Each **Manage Remotely** option is dependant on the compatible operating system of the endpoint selected. For additional information, refer to [Managed Operating Systems](#) on page 15.
- Review the prerequisites of each **Manage Remotely** menu item. Each Remote Systems Management option tasks lists prerequisites prior to usage.

Install the Remote Systems Management plug-in on the local computer.

1. Select **Manage > Endpoints**.

Step Result: The *Endpoint Details* page opens.



- Click the desired **Name** link to open the *Endpoint Details* page.

Step Result: The *Endpoint Details* page displays with the **Information** tab selected by default.

- Click **Manage Remotely** and select one of the following options:

Table 28: Manage Remotely Options

Option	Description
Launch Remote Desktop...	The Windows Remote Desktop (RDC) application. For more information, refer to <i>The Remote Desktop Connection</i> on page 48.
Launch MMC: Computer Management...	The Microsoft Management Console (MMC) application. For more information, refer to <i>MMC: Computer Management</i> on page 50.
Launch NSLookup...	Launches the NSLookup MS-DOS command. For more information, refer to <i>The NSLookup MS-DOS Command</i> on page 53.
Launch Ping...	Launches the Ping MS-DOS command. For more information, refer to <i>The Ping MS-DOS Command</i> on page 54.
Launch Putty...	The PuTTY application. For more information, refer to <i>PuTTY: Remote Management Tool</i> on page 56.
Launch VNC...	The Virtual Network Connection (VNC) application. For more information, refer to <i>The Virtual Network Connection</i> on page 58.
Note: Option access is dependant on the compatible operating system of the endpoint selected. For additional information, refer to <i>Managed Operating Systems</i> on page 15.	

Attention: For Mozilla Firefox 3.x browser users, to successfully install the Remote Systems Management plug-in and turn off the *Save File* dialog, Mozilla Firefox 3.x requires .NET Framework 3.5 SP1 additional add-on for Firefox. For additional information on browser requirements, refer to *Supported Client Browsers* on page 13.

- Choose the applicable option:

Dialog	Step
If the <i>Remote Systems Management plug-in dialog</i> opens:	Click Run to install the Remote Systems Management plug-in.



Dialog	Step
If the .NET Framework 3.5 SPI dialog opens:	Install the .Net Framework and Remote Systems Management plug-in. <ol style="list-style-type: none"> 1. Click Install Now to begin the install of .NET Framework 3.5 SP1. 2. Click Install to complete the install of the .NET Framework 3.5 SP1. 3. Click Run to install the Remote Systems Management plug-in.

Step Result: The Remote Systems Management plug-in installs and the selected option automatically launches on the local computer.

Manage Remotely Access Right

The Remote Systems Management adds an additional access right to the Lumension Endpoint Management and Security Suite.

The *Manage Remotely* access right is automatically added to the **Access Rights** tab in the *Edit Role* window.

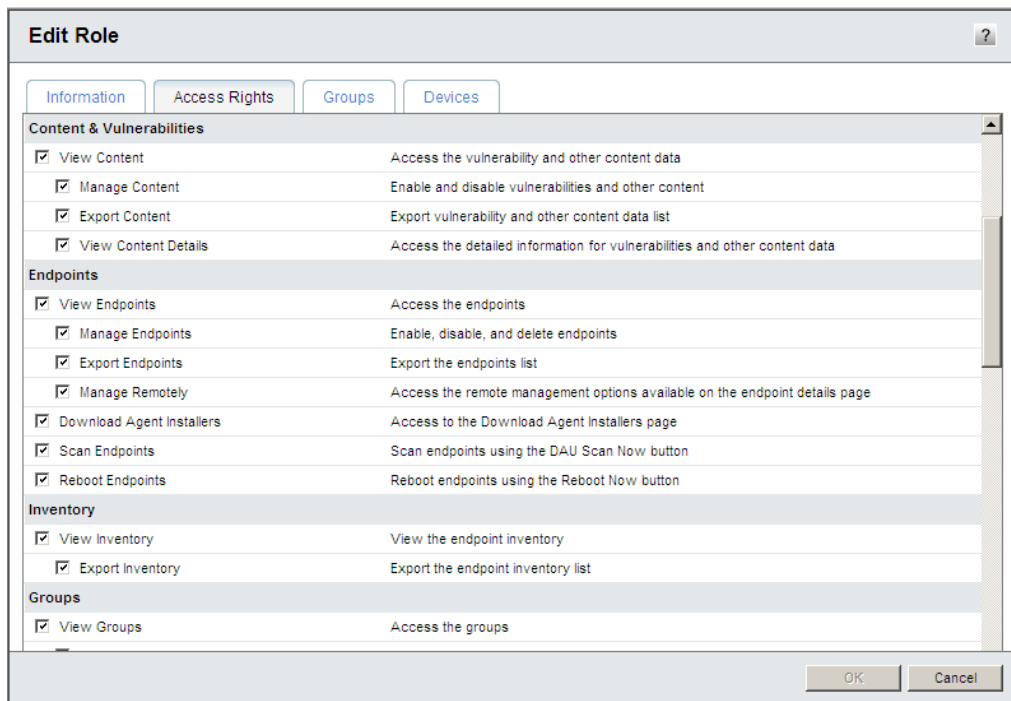







Figure 26: Access Rights Tab



Once Remote Systems Management is installed, the Administrator and Manager roles have the *Manage Remotely* access right selected by default. Custom role users may be granted the access right if needed. The following table describes the Manage Remotely roles and the icons that denote them.

Table 29: Manage Remotely Roles

Role	Icon	Description
Administrator		The Manage Remotely access right is assigned by default.
Guest		The Manage Remotely access right is not assigned by default, and this predefined system role cannot be edited.
Manager		The Manage Remotely access right is assigned by default.
Operator		The Manage Remotely access right is not assigned by default, and this predefined system role cannot be edited.
Custom		The Manage Remotely access right is not assigned by default, but can be manually assigned if needed.

Note: For additional information regarding access rights, refer to the *Lumension Endpoint Management and Security Suite 7.1 User Guide* (<http://portal.lumension.com>).

The Remote Desktop Connection

The Windows Remote Desktop Connection (RDC) allows you to connect to a remote computer.



Launching the Remote Desktop Connection

The **Launch Remote Desktop...** option, launches the Windows Remote Desktop Connection (RDC) so you can connect to a target endpoint.

Prerequisites:

- The local computer must have network access to the endpoint computer.
- The Lumension Remote Systems Management plug-in must be installed on the local computer. For additional information, refer to *Installing the Remote Systems Management Plug-In* on page 45.
- The endpoint must be turned on.
- The *Windows Remote Desktop Connection* component must be enabled on the endpoint system. For additional information, refer to *Connect to another computer using Remote Desktop Connection* (<http://windows.microsoft.com/en-US/windows-vista/Connect-to-another-computer-using-Remote-Desktop-Connection>).
- The endpoint must run a Windows supported operating system. For additional information, refer to *Managed Operating Systems* on page 15.
- For permission to connect to the endpoint, you must have Administrative rights or membership in the Remote Desktop Users Group on the endpoint.

1. Select **Manage > Endpoints**.

Step Result: The *Endpoints* page displays.

2. Click the desired **Name** link to open the *Endpoint Details* page.

Step Result: The *Endpoint Details* page displays with the **Information** tab selected by default.

The screenshot shows the 'Endpoint Details' page for 'TEMPLATE_WIN200'. The page is divided into several sections:

- Endpoint Information:**
 - Endpoint Name: TEMPLATE_WIN200
 - DNS: TEMPLATE_WIN2008_EE_SP1_x86
 - IP: 10.10.0.10
 - MAC Address: 00:50:56:AF:49:36
 - Description:
- Operating System Information:**
 - Operating System: Win2K8
 - OS Version: 6.0
 - OS Service Pack: Service Pack 2
 - OS Build Number: 6002
- Agent Information:**
 - Agent version: 7.1.0.1188
 - Agent installation date: 12/8/2010 9:59:54 AM (Local)
 - Uninstall password:
- Status Information:**
 - Agent status: Online
 - Last connected date: 12/14/2010 11:18:05 AM (Local)
 - PR status: Idle
 - Last DAU scan status: **SUCCESS**
 - Last DAU scan time (server): 12/14/2010 9:47:00 AM (Local)
- Component Information Table:**

Component	Available with this Agent Version	Installed	Installation Date/Time (Server)	Running Version	Policy Version

Figure 27: The Endpoint Details Page



3. Click **Manage Remotely > Launch Remote Desktop...**

Attention: The endpoint must be Windows supported operating system in order for the **Launch Remote Desktop...** menu item to display. For additional information on remote system management functionality by operating system, refer to *Managed Operating Systems* on page 15.

Step Result: The *Windows Security* dialog opens.

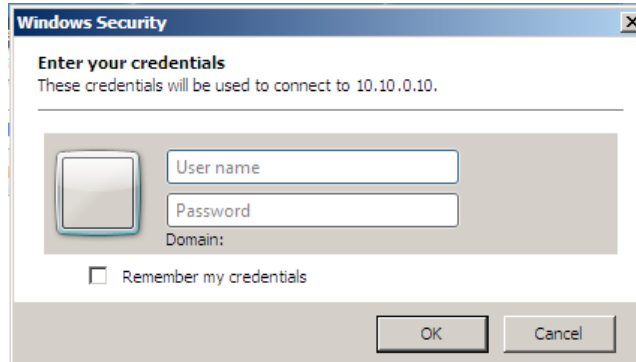


Figure 28: The Windows Security Dialog

4. Type the **Windows** credentials in the following fields.

Field	Description
Username	A valid user name for the endpoint. Type the user name in local format (username) or domain format (domain/username).
Password	The password associated with the Username .

5. Click **OK**.

Step Result: The **Remote Desktop** connects to the endpoint.

Important: Endpoints that run pre-Vista versions of Windows or are not configured to support server authentication and do not provide identity verification. In these cases, a verification dialog displays on these endpoints. Click **Yes** to connect.

MMC: Computer Management

Microsoft Management Console (MMC) is an application that provides Windows management services for hosting administrative tools to administer networks, computers, services, and other system components on target endpoints.



Launching the Microsoft Management Console

Launching Microsoft Management Console (MMC) allows you to connect to a target endpoint.

Prerequisites:

- The local computer must have network access to the endpoint computer.
 - The Lumension Remote Systems Management plug-in must be installed on the local computer. For additional information, refer to *Installing the Remote Systems Management Plug-In* on page 45.
 - The local computer (the system from which you are accessing the Lumension EMSS) must have access to the Computer Management snap-in. For additional information, refer to *Restrict users to the explicitly permitted list of snap-ins* (<http://technet.microsoft.com/en-us/library/cc975962.aspx>).
 - The endpoint must be turned on.
 - The endpoint must have a Windows supported operating system. For additional information, refer to *Managed Operating Systems* on page 15.
 - For permission to connect to the endpoint, you must have Administrative rights on the endpoint.
-

1. Select **Manage** > **Endpoints**.

Step Result: The *Endpoints* page displays.

2. Click the desired **Name** link to open the *Endpoint Details* page.

Step Result: The *Endpoint Details* page displays with the **Information** tab selected by default.



3. Click **Manage Remotely > Launch MMC: Computer Management...**

Attention: The endpoint must be Windows supported operating system in order for the **Launch MMC: Computer Management...** menu item to display. For additional information on remote system management functionality by operating system, refer to *Managed Operating Systems* on page 15.

Step Result: The *Computer Management* dialog opens.

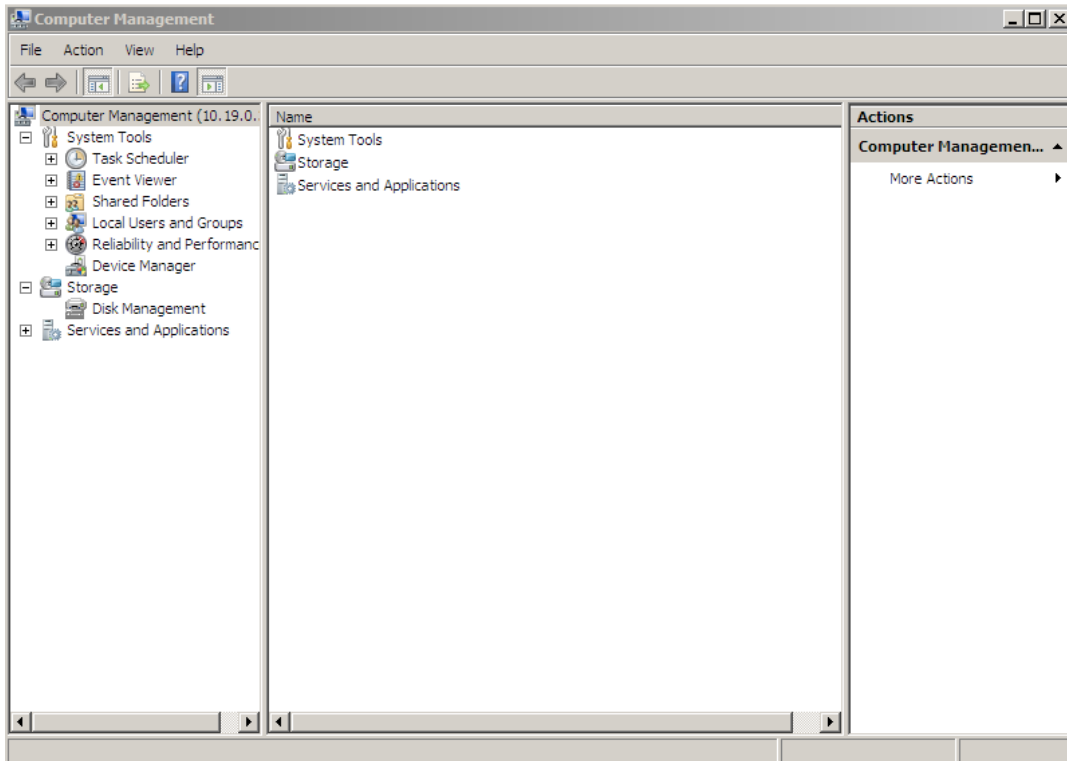


Figure 29: Computer Management Dialog

The NSLookup MS-DOS Command

The `NSLOOKUP` command is a standard MS-DOS command that enables an administrator to query a Domain Name System (DNS) server to find DNS details.

The `NSLOOKUP` MS-DOS command window displays two sections. The first section specifies the server name and IP address of the host server and the second section is the endpoints' DNS server name and IP address.

- Host
 - Server: `Example.Company.Demo`
 - Address: `19.19.195.19`
- Endpoint
 - Name: `Example.Endpoint.Demo`
 - Address: `10.10.0.10`

Launching the NSLookup MS-DOS Command

Launching the `NSLOOKUP` MS-DOS command opens a window that displays the host server name and IP address and also the endpoints' Domain Name System (DNS) server name and IP address.

Prerequisites:

- The local computer must have network access to the endpoint computer.
- The Lumension Remote Systems Management plug-in must be installed on the local computer. For additional information, refer to [Installing the Remote Systems Management Plug-In](#) on page 45.
- The endpoint must be turned on.
- The endpoint must have a supported operating system. For additional information, refer to [Managed Operating Systems](#) on page 15.

1. Select **Manage** > **Endpoints**.

Step Result: The *Endpoints* page displays.

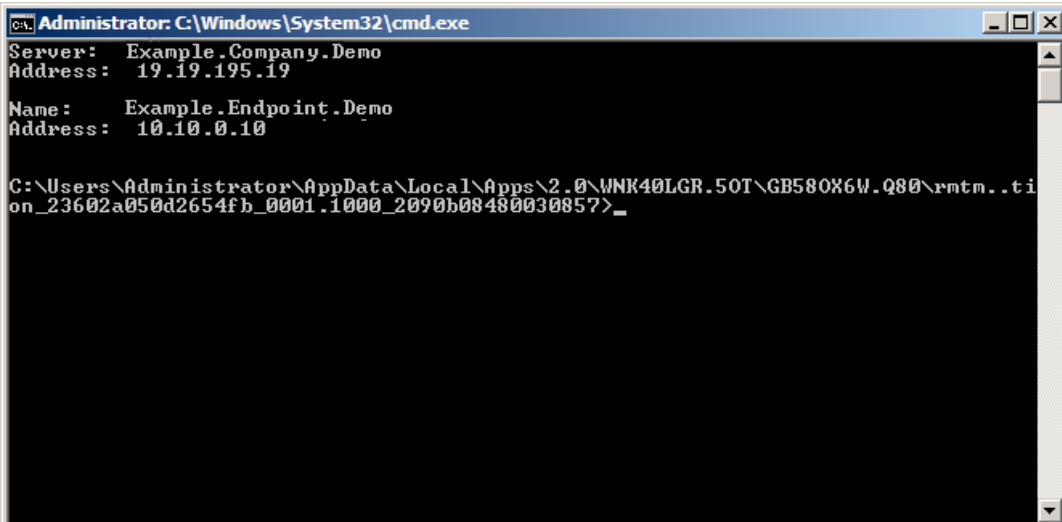
2. Click the desired **Name** link to open the *Endpoint Details* page.

Step Result: The *Endpoint Details* page displays with the **Information** tab selected by default.



3. Click **Manage Remotely > Launch NSLookup...**

Step Result: The *Command Prompt* window opens.



```

Administrator: C:\Windows\System32\cmd.exe
Server: Example.Company.Demo
Address: 19.19.195.19

Name: Example.Endpoint.Demo
Address: 10.10.0.10

C:\Users\Administrator\AppData\Local\Apps\2.0\WNK40LGR.50T\GB580X6W.Q80\rntm..ti
on_23602a050d2654fb_0001.1000_2090b08480030857>_

```

Figure 30: Command Prompt Showing NSLOOKUP Result

The Ping MS-DOS Command

The PING command is a standard MS-DOS command that can display the computer name and the IP address of the endpoint computer.

Sample Ping MS-DOS command window syntax is described in the following table.

Table 30: Ping MS-DOS Command Syntax

Value	Description
Pinging 10.10.0.10 with 32 bytes of data:	Ping sends an Internet Control Message Protocol (ICMP) echo packet (with the Time To Live (TTL) value set to the host default) to the host listed on the ping command line.
Reply from 10.10.0.10: bytes=32 time<lms TTL=128	The ICMP response. In the process it measures the time from transmission to reception (round-trip time) and records any packet loss.
Ping Statistics	The statistics from pinging the host. They include how many packets were sent, received, and lost. Also shown are round trip times and averages.

Launching the PING MS-DOS Command

Launching the Ping MS-DOS command allows you to verify that a particular address exists and can accept requests.

Prerequisites:

- The local computer must have network access to the endpoint computer.
- The Lumension Remote Systems Management plug-in must be installed on the local computer. For additional information, refer to *Installing the Remote Systems Management Plug-In* on page 45.
- The endpoint must be turned on.
- The endpoint must have a supported operating system. For additional information, refer to *Managed Operating Systems* on page 15.

1. Select **Manage > Endpoints**.

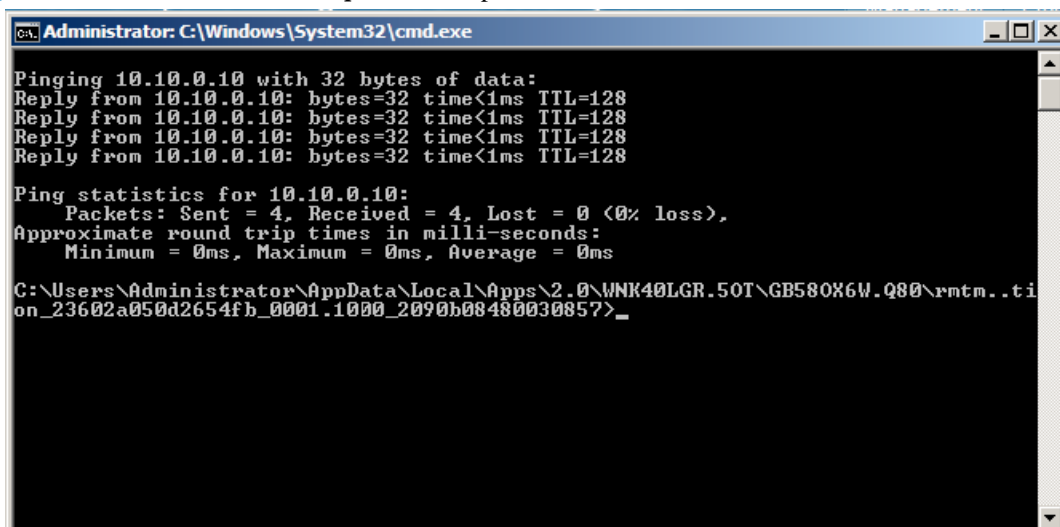
Step Result: The *Endpoints* page displays.

2. Click the desired **Name** link to open the *Endpoint Details* page.

Step Result: The *Endpoint Details* page displays with the **Information** tab selected by default.

3. Click **Manage Remotely > Launch Ping...**

Step Result: The *Command Prompt* window opens.



```
Administrator: C:\Windows\System32\cmd.exe

Pinging 10.10.0.10 with 32 bytes of data:
Reply from 10.10.0.10: bytes=32 time<1ms TTL=128
Reply from 10.10.0.10: bytes=32 time<1ms TTL=128
Reply from 10.10.0.10: bytes=32 time<1ms TTL=128
Reply from 10.10.0.10: bytes=32 time<1ms TTL=128

Ping statistics for 10.10.0.10:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\Users\Administrator\AppData\Local\Apps\2.0\W\NK40LGR.50T\GB580X6W.Q80\rmtm..ti
on_23602a050d2654fb_0001.1000_2090b08480030857>_
```

Figure 31: Command Prompt Showing Ping Result



PuTTY: Remote Management Tool

PuTTY is an open source communications tool that uses Secure Shell (SSH) and Teletype Network (Telnet) protocols to remotely control a targeted computer over the Internet. When installed on a computer running a Windows operating system, PuTTY allows you to remotely control a computer running a Non-Windows operating system.

The PuTTY communication tool needs to be installed on the client computer prior to its usage within the Lumension Endpoint Management and Security Suite Web console.

Note: For additional information about installing PuTTY, refer to *PuTTY: A Free Telnet/SSH Client* (<http://www.chiark.greenend.org.uk/~sgtatham/putty/>).

Using PuTTY on the local computer (the system from which you are accessing Lumension Endpoint Management and Security Suite) allows you to remotely control an endpoint.

Launching the PuTTY Communication Tool

Launching the PuTTY communication tool creates a connection to the target endpoint.

Prerequisites:

- The local computer must have network access to the endpoint computer.
 - The Lumension Remote Systems Management plug-in must be installed on the local computer. For additional information, refer to *Installing the Remote Systems Management Plug-In* on page 45.
 - The PuTTY communication tool is installed on the client computer. For installation information about PuTTY, refer to *PuTTY: A Free Telnet/SSH Client* (<http://www.chiark.greenend.org.uk/~sgtatham/putty/>).
 - The endpoint must be turned on.
 - The endpoint must have a Non-Windows supported operating system. For additional information, refer to *Managed Operating Systems* on page 15.
 - For permission to connect to the endpoint, you must have Administrative rights on the endpoint.
-

1. Select **Manage > Endpoints**.

Step Result: The *Endpoints* page displays.

2. Click the desired **Name** link to open the *Endpoint Details* page.

Step Result: The *Endpoint Details* page displays with the **Information** tab selected by default.



3. Click **Manage Remotely > Putty...**

Attention: The endpoint must be a Non-Windows supported operating system in order for the **Putty...** menu item to display. For additional information on remote system management functionality by operating system, refer to *Managed Operating Systems* on page 15.

Step Result: The *Putty Launch Parameters* dialog opens with the default endpoint *IP Address* filled in.

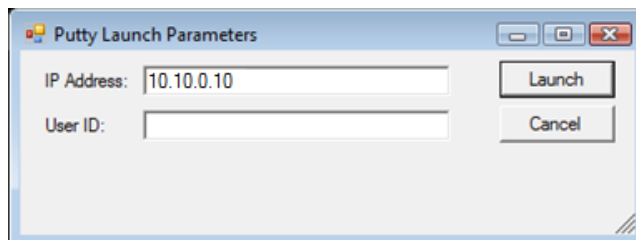


Figure 32: Putty Launch Parameters

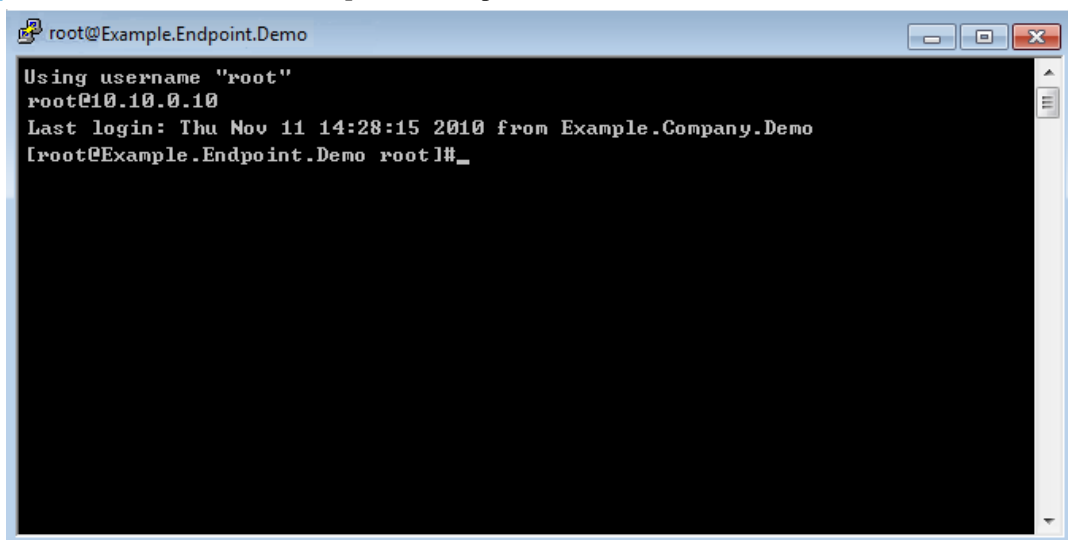
Tip: Lumension recommends that you use the default path location when installing the applicable PuTTY application. Using an alternative path results in having to re-locate the PuTTY tool each time **Manage Remotely > Putty...** is selected.

4. In the **User ID** field, type the user name specific to the target IP address.



5. Click **Launch**.

Step Result: The *Command Prompt* window opens.



```
root@Example.Endpoint.Demo
Using username "root"
root@10.10.0.10
Last login: Thu Nov 11 14:28:15 2010 from Example.Company.Demo
[root@Example.Endpoint.Demo root]#_
```

Figure 33: Command Prompt Showing PuTTY Result

Result: The PuTTY communication tool creates a connection to the target endpoint.

Note: If connection fails, then verify that a firewall on either the endpoint or local computer is not blocking the connection. For additional troubleshooting information, refer to *PuTTY FAQ* (<http://www.chiark.greenend.org.uk/~sgtatham/putty/faq.html>).

The Virtual Network Connection

The Virtual Network Connection (VNC) is a platform-independent application that allows remote access to another computer. Using computers installed with VNC gives administrators the ability to view and interact with computers over a network or Internet.

VNC connectivity requires two components: *Server* and *Viewer*. The server component runs on the endpoint you want to remotely access and the viewer component runs on the system where the administrator is at. To get started with VNC you need to configure the server component and then connect using a viewer. VNC is platform-independent, a VNC viewer on one operating system may connect to a VNC server on the same or any other operating system.

Install the VNC server on all endpoint computers you may need to connect to and then install the VNC viewer on the computer (the system from which you are accessing the Lumension Endpoint Management and Security

Suite). Once installed, VNC allows an administrator using Lumension EMSS to connect to the local VNC viewer, therefore allowing a connection to the endpoint.

Note: There are a number of variants of VNC which offer their own particular functionality. For information on VNC®, refer to *Getting Started with VNC* (<http://www.realvnc.com/support/getting-started.html>).

Launching the Virtual Network Connection Tool

Launching the Virtual Network Connection (VNC) tool allows remote access to the target endpoint.

Prerequisites:

- Install the VNC server component on the endpoint computer. For installation information, refer to *VNC® Server Free Edition 4.1 for Windows* (<http://www.realvnc.com/products/free/4.1/winvnc.html>).
 - Install the VNC client component on the local computer (the system from which you are accessing the Lumension Endpoint Management and Security Suite). For installation information, refer to *VNC® Viewer Free Edition 4.1 for Windows* (<http://www.realvnc.com/products/free/4.1/winvncviewer.html>).
 - The local computer must have network access to the endpoint computer.
 - The Lumension Remote Systems Management plug-in must be installed on the local computer. For additional information, refer to *Installing the Remote Systems Management Plug-In* on page 45.
 - The endpoint must be turned on.
 - The endpoint must have a supported operating system. For additional information, refer to *Managed Operating Systems* on page 15.
 - For permission to connect to the endpoint, you must have Administrative rights on the endpoint.
-

Note: VNC® Free Edition 4.1 is used in launching the VNC connection. For information, refer to *VNC® Viewer Free Edition 4.1 - VNC Windows Documentation* (<http://www.realvnc.com/products/free/4.1/>).

1. Select **Manage > Endpoints**.

Step Result: The *Endpoints* page displays.

2. Click the desired **Name** link to open the *Endpoint Details* page.

Step Result: The *Endpoint Details* page displays with the **Information** tab selected by default.



3. Click **Manage Remotely** > **VNC...**

Step Result: The *VNC Launch Parameters* dialog opens with the default endpoint *IP Address* and *VNC Port*.

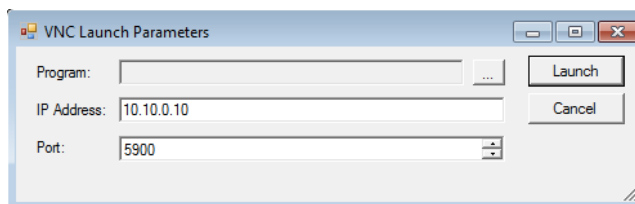


Figure 34: VNC Launch Parameters Dialog

Note: Lumension recommends that you use the default path location when installing the applicable VNC Viewer. Using an alternative path results in having to re-locate the VNC client each time **Manage Remotely** > **VNC...** is selected.

4. Set the applicable settings.

- In the **Program** field, click the **Ellipses** button (...) and browse to the applicable VNC Viewer application.
- Verify the IP address of the endpoint.
- Verify the Port of the endpoint.

5. Click **Launch**.

Step Result: The *VNC Viewer Authentication* dialog opens.

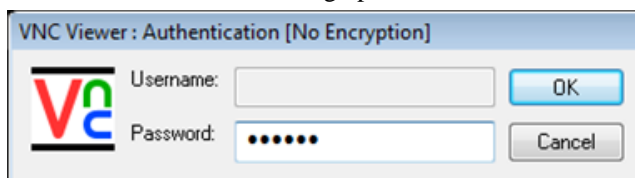


Figure 35: VNC Viewer Authentication Dialog

6. In the **Password** field, type the password.

Note: VNC® Viewer Free Edition can be used to connect to servers configured for No Authentication or VNC Password Authentication. If VNC Password Authentication is configured then you will be prompted to enter the password. VNC Free Edition does not currently support usernames.

7. Click **OK**.

Step Result: The connection to the target endpoint is created and the target endpoint's desktop appears. You can use your keyboard and mouse to control the connected endpoint.

Note: If connection fails, then verify that a firewall on either the endpoint or local computer is not blocking the connection. For additional troubleshooting information, refer to *VNC® Knowledge Base* (<http://kb.realvnc.com/>).

